

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION**

UNITED STATES OF AMERICA)
)
)
Plaintiff,)
)
v.)
)
HINO MOTORS, LTD.,)
)
HINO MOTORS MANUFACTURING)
U.S.A., INC., and)
)
HINO MOTORS SALES U.S.A., INC.)
)
Defendants.)

Civil Action No.:

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency (“EPA”), files this Complaint and alleges as follows:

I. NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204, 205, and 213(d) of the Clean Air Act (“Act”), 42 U.S.C. §§ 7523, 7524, and 7547(d), for violations of Section 203 of the Act, 42 U.S.C. § 7522, and of the regulations promulgated pursuant to Section 202 and 213 of the Act, 42 U.S.C. §§ 7521 and 7547, and codified at 40 C.F.R. Part 86 (Control of Emissions from New and In-Use Highway Vehicles and Engines), 40 C.F.R. Part 1036 (Control of Emissions from New and In-Use Heavy-Duty Highway Engines), 40 C.F.R. Part 1039 (Control of Emissions from New and In-Use Nonroad Compression-Ignition Engines), 40 C.F.R. Part 1065 (Engine-Testing Procedures), and 40 C.F.R. Part 1068 (General Compliance Provisions for Highway, Stationary, and Nonroad Programs). This action seeks injunctive relief and the assessment of civil penalties against Hino Motors, Ltd., Hino Motors Manufacturing U.S.A., Inc., and Hino Motors Sales U.S.A., Inc. (collectively “Defendants” or “Hino”) for violations of the Act and regulations promulgated under the Act.

2. For over a decade, nearly all test data submitted by Defendants to EPA in support of their engine certification applications was incorrect, manipulated, or in many cases, entirely fabricated.

3. From at least 2010 to 2019, Defendants knowingly submitted incorrect or incomplete testing information, or knowingly rendered test data inaccurate, or submitted false or fabricated test data in their applications for EPA Certificates of Conformity (“COCs”) covering approximately 105,000 heavy-duty highway (or “onroad”) engines and approximately 5,700 nonroad compression-ignition engines (collectively, the “Subject Engines”).

4. Defendants also failed to disclose multiple software-based features that affect the Subject Engines’ emission control systems, known as Auxiliary Emission Control Devices.

5. As a result, each Subject Engine does not conform in all material respects to the design specifications listed in the COC application and therefore is not covered by the applicable COC.

6. On January 10, 2025, EPA’s Office of Transportation and Air Quality, in accordance with Sections 206(b)(2)(A) of the Act, 42 U.S.C. § 7525(b)(2)(A), voided *ab initio* the applicable COCs for the Subject Engines.

7. Hino (1) sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported each of the Subject Engines, in

violation of Section 203(a)(1) the Act, 42 U.S.C. § 7522(a)(1); (2) failed to submit complete and accurate reports to EPA in violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2); (3) manufactured, sold, offered for sale, or installed parts or components in its Subject Engines where the principal effect of the part or component was the bypassing, defeat, or rendering inoperative of a device or element of design installed on or in the Subject Engines, in violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B); and (4) incorporated software in its Subject Engines that remove or render inoperative elements of design of the engines' emission control systems installed in its Subject Engines in compliance with regulations promulgated under Title II of the Act, in violation of Section 203(a)(3)(A), 42 U.S.C. § 7522(a)(3)(A).

II. JURISDICTION AND VENUE

8. The United States District Court for the Eastern District of Michigan has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, 205, and 213(d) of the Act, 42 U.S.C. §§ 7522, 7523, 7524, and 7547(d) and 28 U.S.C. §§ 1331, 1345, and 1355.

9. Venue is proper in the Eastern District of Michigan pursuant to Sections 204, 205, and 213(d) of the Act, 42 U.S.C. §§ 7523, 7524, and 7547(d) as well as 28 U.S.C. §§ 1391(b)(2) and (c)(2) and 1395(a), because it is the judicial

district in which Defendants have been doing business and because violations alleged in the Complaint occurred in this judicial district.

III. DEFENDANTS

10. Hino Motors, Ltd. is a Japanese corporation with its headquarters located in Tokyo, Japan, and is an approximately 50.2% owned subsidiary of Toyota Motor Corporation and a Toyota Group Company. Hino Motors, Ltd. manufactures commercial vehicles and diesel engines in Japan, including the Subject Engines.

11. Hino Motors Manufacturing U.S.A., Inc. is a Delaware corporation with its principal place of business located in Novi, Michigan. Hino Motors Manufacturing U.S.A. Inc. is a wholly-owned subsidiary of Hino Motors, Ltd. and a Toyota Group Company. Hino Motors Manufacturing U.S.A., Inc. owns and operates a manufacturing facility in West Virginia where it installs Hino-manufactured engines, including the Subject Engines, into Hino-branded trucks.

12. Hino Motors Sales U.S.A., Inc. is a Delaware corporation with its principal place of business in Novi, Michigan, and is a 50%-owned subsidiary of Hino Motors, Ltd. Hino Motors Sales U.S.A., Inc. is responsible for the marketing, sale and distribution of Hino trucks in the United States.

13. At all times relevant to this action, each Defendant described in Paragraphs 10-12 above sold, offered for sale, introduced into commerce, delivered

for introduction into commerce, or imported into the United States the Subject Engines that are the subject of this Complaint, or caused one or more of the foregoing acts to occur.

IV. STATUTORY AND REGULATORY BACKGROUND

14. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides (“NO_x”) and other pollutants from mobile sources of air pollution, including from new motor vehicles, new motor vehicle engines, and new nonroad engines.

15. NO_x is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NO_x are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

16. Particulate matter (“PM”) is a form of air pollution composed of microscopic solids and liquids suspended in air. PM is emitted directly from motor

vehicles and is also formed in the atmosphere from other pollutants, including pollutants emitted from motor vehicles. Breathing PM particles can cause a variety of health problems, including cardiovascular issues, asthma, and decreased lung function. Fine particles are also the main cause of reduced visibility (haze) in parts of the United States.

17. Carbon dioxide (“CO₂”) and nitrous oxide (“N₂O”) are greenhouse gases. Emissions of greenhouse gases can endanger public health and welfare. 74 Fed. Reg. 66,496 (Dec. 15, 2009).

18. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emission standards for new motor vehicles and new motor vehicle engines for NO_x and other air pollutants, including PM, CO₂, and N₂O.

19. Section 213(a)(3) of the Act requires that EPA promulgate standards for new nonroad engines that will achieve the greatest degree of emission reduction available and requires that EPA consider standards equivalent in stringency to those applicable to motor vehicles and engines. 42 U.S.C. § 7547(a)(3).

20. Section 216(2) of the Act, 42 U.S.C. § 7550(2), defines “motor vehicle” as “any self-propelled vehicle designed for transporting persons or property on a street or highway.”

21. Section 216(3) of the Act, 42 U.S.C. § 7550(3), defines “new motor vehicle” as “a motor vehicle the equitable or legal title to which has never been transferred to an ultimate purchaser” and, with respect to imported vehicles, “a motor vehicle . . . manufactured after the effective date of a regulation issued under [Section 202 of the Act, 42 U.S.C. § 7521] which is applicable to such vehicle . . . (or which would be applicable to such vehicle . . . had it been manufactured for importation into the United States).”

22. Section 216(3) of the Act, 42 U.S.C. § 7550(3), defines “new motor vehicle engine” as “an engine in a new motor vehicle or a motor vehicle engine the equitable or legal title to which has never been transferred to an ultimate purchaser” and, with respect to imported engines, “a motor vehicle engine . . . manufactured after the effective date of a regulation issued under [Section 202 of the Act, 42 U.S.C. § 7521] which is applicable to such . . . engine (or which would be applicable to such . . . engine had it been manufactured for importation into the United States).”

23. Section 216(10) of the Act, 42 U.S.C. § 7550(10), defines “nonroad engine” as “an internal combustion engine . . . that is not used in a motor vehicle or a vehicle used solely for competition,” or that is not subject to the standards applicable to new stationary sources in Section 111 of the Act, 42 U.S.C. § 7411, or new motor vehicles in Section 202 of the Act, 42 U.S.C. § 7521.

24. Section 216(11) of the Act, 42 U.S.C. § 7550(11), defines “nonroad vehicle” as “a vehicle that is powered by a nonroad engine and that is not a motor vehicle or a vehicle used solely for competition.”

25. A heavy-duty engine is an engine used in a heavy-duty vehicle. 40 C.F.R. §§ 86.082-2, 1036.801.

26. A heavy-duty vehicle is a motor vehicle rated at more than 8,500 pounds gross vehicle weight rating. 40 C.F.R. §§ 86.082-2, 1036.801.

27. Section 216(1) of the Act, 42 U.S.C. § 7550(1), defines “manufacturer” as “any person engaged in the manufacturing or assembling of new motor vehicles, new motor vehicle engines, new nonroad vehicles or new nonroad engines, or importing such vehicles or engines for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles, new motor vehicle engines, new nonroad vehicles or new nonroad engines”

28. EPA has promulgated, and from time to time revised, emission standards for new and in-use highway vehicles and engines at 40 C.F.R. Part 86, new and in-use heavy-duty highway engines at 40 C.F.R. Part 1036, and for new and in-use nonroad compression-ignition engines at 40 C.F.R. Part 1039.

A. Engine Families and Emissions Testing

29. New heavy-duty highway engines and new nonroad compression-ignition engines must satisfy emission standards for certain air pollutants, including emission standards for NO_x, PM, CO₂, and N₂O. 40 C.F.R. §§ 86.007-11 (emission standards for 2007 and later model year highway diesel heavy-duty engines), 1036.104 (criteria pollutant emission standards—NO_x and PM) 1036.108(a) (greenhouse gas emission standards—CO₂, and N₂O), 1039.101 (emission standards for after model year 2014 nonroad compression ignition engines), 1039.102 (emission standards for model year 2014 and earlier nonroad compression ignition engines).

30. Manufacturers group engines within engine families for purposes of demonstrating compliance with emission standards. *See, e.g.*, 40 C.F.R. §§ 86.096-24, 1036.235, 1039.230.

31. An engine family is generally comprised of engines with similar engine design that are subject to the same emission standards for pollutants regulated under the Act. *See, e.g.* 40 C.F.R. §§ 86.096-24, 1036.235, 1039.230.

32. For heavy-duty highway engines, EPA requires manufacturers to conduct a series of tests to measure exhaust emissions of regulated pollutants to demonstrate compliance with emission standards. These emissions tests include: (i) the Federal Test Procedure (“FTP”), which EPA uses to evaluate emissions under

certain driving conditions; (ii) the Supplemental Emissions Test (“SET”), also called ramped-modal cycle (“RMC”) testing, a single test cycle run essentially at steady state engine speeds and torque points; and (iii) not-to-exceed (“NTE”) testing to demonstrate compliance with emission standards while operating within a broad range of speed and load points (the Not-To-Exceed Control Area) and under conditions which can reasonably be expected to be encountered in normal engine operation and use. *See* 40 C.F.R. § 86.007-11.

33. For nonroad engines, EPA requires manufacturers to conduct a series of tests to measure exhaust emissions of regulated pollutants from each engine family in order to demonstrate compliance with emission standards. 40 C.F.R. §§ 1039.201, 1039.205. These emissions tests include steady-state duty cycles, transient duty cycles, and NTE testing. 40 C.F.R. §§ 1039.505 (steady-state duty cycles), 1039.510 (transient duty cycles), 1039.515 (NTE). The regulations allow applicants to choose the appropriate steady-state duty cycle for an engine, either discrete-mode or ramped-modal testing. 40 C.F.R. § 1039.505.

34. With the exception of NTE, each emissions test cycle has a set of fixed sequences, parameters, and driving cycles used to run the test. *See, e.g.*, 40 C.F.R. § 86.007-11, 40 C.F.R. §§ 1039.505. For example, the FTP is always run in three phases with prescribed driving times, driving speeds, acceleration intervals, deceleration intervals, engine soak times (*i.e.*, non-driving and non-

sampling times before or in between phases), engine “key-off” intervals, and ambient air temperature range. *See* 40 C.F.R. § 86.007-11(a)(2).

35. For heavy-duty highway engines and nonroad engines, manufacturers must demonstrate that an engine will meet emission standards throughout the engine’s regulatory useful life by providing adequate information on the engine’s durability in the engine certification application. 40 C.F.R. §§ 86.004-28, 1039.245, 1065.405, 1065.415. Manufacturers do this by calculating a deterioration factor (“DF”), which is determined using engineering analysis and test data. DF testing requires thousands of hours of engine operation. The DF reflects the deterioration in emission controls expected to occur during the useful life of an engine. *See* 40 C.F.R. §§ 86.004-28, 1039.801 A manufacturer must adjust the emissions test results based on the DF to determine whether an engine will meet the emission standards throughout the engine’s full useful life. 40 C.F.R. § 1065.415. A manufacturer must exercise good engineering judgment and practice when developing a DF. *Id.*

B. Certificates of Conformity and Prohibition on Uncertified Engines

36. EPA administers a certification program, under which it issues COCs, to ensure that every new motor vehicle engine and nonroad engine introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. §§ 7521 and 7547.

37. To obtain a COC for a motor vehicle engine or a nonroad engine, a manufacturer must submit a COC application to EPA for each engine family and each engine model year that it intends to introduce into United States commerce. The COC application must include, among other things, identification of the covered engine family, a description of the engines and their emission control system, and test results from a test engine demonstrating compliance with the applicable emission standards. 40 C.F.R. §§ 86.004-21, 86.007-21, 86.094-21, 1039.201, 1039.205.

38. Each COC application must be in writing and signed by an authorized representative of the manufacturer, and it must include a statement that the engine family complies with all applicable regulations found in 40 C.F.R., Chapter I. 40 C.F.R. §§ 86.007-30, 1039.201(e), 1065.2(d).

39. When manufacturers submit COC applications to EPA, they must confirm that the engine family that is the subject of the application complies with the applicable federal emissions regulations. *See, e.g.*, 40 C.F.R. § 86.007-21.

40. If, after review of the COC application and other information, EPA determines that the test engine described in the COC application meets the requirements of the Act, EPA will issue a COC. 40 C.F.R. §§ 86.007-30(a)(1), 1039.201-255.

41. EPA issues COCs “upon such terms . . . as [the Administrator] may prescribe.” 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.007-30(a)(2) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicle engines satisfy the requirements of the Act and its regulations), 40 C.F.R. § 1039.255(a) (authorizing EPA to approve COCs for nonroad engine families “subject to additional conditions”).

42. EPA may void a COC that has already been issued where, *inter alia*, a manufacturer intentionally submits false, incomplete, or misleading information. 40 C.F.R. §§ 86.007-30(c)(3), 1039.255(d), 1065.2(c)(2).

43. Each COC application must include, *inter alia*, a list of all auxiliary emission control devices (“AECDs”) installed on the subject vehicles or engines, information about each emission control diagnostic system in the vehicles or engines, and a list of test results for the vehicles or engines. 40 C.F.R. §§ 86.004-21(n), 1039.205(b).

44. An AECD is “any element of design which senses temperature, vehicle speed, engine RPM [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system.” 40 C.F.R. §§ 86.082-2, 1039.801.

45. An element of design is “any control system (*i.e.*, computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine.” 40 C.F.R. § 86.094-2.

46. Motor vehicle engines and nonroad engines are covered by a COC only if the engines are as described in the manufacturer’s application for the COC “in all material respects.” 40 C.F.R. §§ 86.098-23(e)(1), 1068.103(c)(1).

47. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles and new motor vehicle engines from selling, offering for sale, introducing into commerce, or delivering for introduction into commerce, or any person from importing into the United States, any new motor vehicle and new motor vehicle engines not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle and engine emission standards.

48. Section 213(d) of the Act, 42 U.S.C. § 7547(d), states that nonroad vehicle and engine standards “shall be enforced in the same manner as standards prescribed under [Section 202, 42 U.S.C.] section 7521 of [the Act]” for motor vehicles and motor vehicle engines and that the Administrator “shall revise or promulgate regulations as may be necessary to determine compliance with, and

enforce, standards in effect under this section [CAA Section 213, 42 U.S.C. § 7547].”

49. It is also a violation of the Act to cause any of the acts set forth in Section 203(a)(1). 42 U.S.C. § 7522(a).

C. Prohibition on Defeat Devices and Tampering

50. A “defeat device” is an AECD “that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless (1) such conditions are substantially included in the Federal emission test procedure; (2) the need for the AECD is justified in terms of protecting the vehicle against damage or accident, or; (3) the AECD does not go beyond the requirements of engine starting.” 40 C.F.R. §§ 86.082-2(b), 1039.115(g) (including additional exceptions for emergency equipment).

51. Each COC application must identify and describe each AECD to be installed in or on any engine covered by the application, including a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system. *See* 40 C.F.R. §§ 86.094-21(b), 1039.205(b).

52. No new motor vehicle engines or nonroad engines may be equipped with defeat devices. 40 C.F.R. §§ 86.004-16(a), 1039.115(e).

53. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation “for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle[, nonroad engine,] or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle[, nonroad engine,] or motor vehicle engine in compliance with regulations under [Title II of the Act], and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use.” *See also* 42 U.S.C. § 7547(d).

54. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on or in a motor vehicle engine or nonroad engine in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser. This provision also prohibits any person from knowingly removing or rendering inoperative any device or element of design installed on a motor vehicle engine or nonroad engine in compliance with the regulations promulgated under Title II of the Act after its sale and delivery to the ultimate purchaser. *See also* 42 U.S.C. § 7547(d).

55. It is also a violation of the Act to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. §§ 7522(a), 7547(d).

D. Reporting and Testing Requirements

56. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that “[e]very manufacturer of new motor vehicles or new motor vehicle engines [or nonroad engines] . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance” with Part A of Title II of the Act. *See also* 42 U.S.C. § 7547(d).

57. Section 203(a)(2)(A) of the Act, 42 U.S.C. § 7522(a)(2)(A), prohibits any person from failing or refusing to make reports or to provide information to EPA pursuant to Section 208 of the Act, 42 U.S.C. § 7542. *See also* 42 U.S.C. § 7547(d).

58. Section 203(a)(2)(C) of the Act, 42 U.S.C. § 7522(a)(2)(C), prohibits any person from failing or refusing to test pursuant to Section 208 of the Act, 42 U.S.C. § 7542. *See also* 42 U.S.C. § 7547(d).

59. It is also a violation of the Act to cause any of the acts set forth in Section 203(a)(2). 42 U.S.C. § 7522(a); *see also* 42 U.S.C. § 7547(d).

V. GENERAL ALLEGATIONS

60. Hino Motors, Ltd. is a “person” within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e), because the definition of “person” includes corporations.

61. Hino Motors, Ltd. is a “manufacturer” within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1), because it manufactures, assembles, and imports new motor vehicles, new motor vehicle engines, and new nonroad engines.

62. Hino Motors Manufacturing, Inc. is a “person” within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e), because the definition of “person” includes corporations.

63. Hino Motors Manufacturing, Inc. is a “manufacturer” within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1), because it manufactures and assembles new motor vehicles, and imports new motor vehicle engines.

64. Hino Motor Sales U.S.A., Inc. is a “person” within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e), because the definition of “person” includes corporations.

65. Hino Motor Sales U.S.A., Inc. is a “manufacturer” within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1), because it acts for and is under the control of Hino Motors, Ltd. in connection with the distribution of new motor vehicles.

66. Defendants sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts) approximately 105,000 new heavy-duty

highway engines and approximately 5,700 new nonroad engines (the “Subject Engines”) from the following engine families listed in Table A and Table B below.

Table A - Highway Engine Families

	Model Year	Engine Family
a.	2010	AHMXH07.7JVC
b.	2010	AHMXH07.7JVB
c.	2011	BHMXH07.7JVC
d.	2011	BHMXH07.7JVB
e.	2012	CHMXH05.1JTP
f.	2012	CHMXH07.7JVB
g.	2012	CHMXh07/7JVC
h.	2013	DHMXH05.1JTP
i.	2013	DHMXH07.7JVB
j.	2013	DHMXH07.7JVC
k.	2014	EHMXH07.7JVB
l.	2014	EHMXH07.7JVC
m.	2014	EHMXH05.1JTP
n.	2015	FHMXH05.1JTP
o.	2015	FHMXH07.7JVB

	Model Year	Engine Family
p.	2015	FHMXH07.7JVC
q.	2016	GHMXH05.1JTP
r.	2016	GHMXH07.7JVB
s.	2016	GHMXH07.7JWU
t.	2017	HHMXH05.1JTP
u.	2017	HHMXH07.7JVB
v.	2017	HHMXH07.7JWU
w.	2018	JHMXH05.1JTP
x.	2018	JHMXH07.7JVB
y.	2019	KHMXH08.9AVF
z.	2019	KHMXH05.1JTP
aa.	2019	KHMXH07.7JVB

Table B - Nonroad Engine Families

	Model Year	Engine Family
a.	2011	BHMXL07.7JUV*
b.	2012	CHMXL05.1JTJ*
c.	2012	CHMXL07.7JUV*

	Model Year	Engine Family
d.	2013	DHMXL05.1JTJ*
e.	2013	DHMXL07.7JUV*
f.	2013	DHMXL10.5PVC*
g.	2014	EHMXL05.1JTJ*
h.	2014	EHMXL07.7JV
i.	2015	FHMXL07.7JV
j.	2016	GHMXL07.7JVV
k.	2017	HHMXL07.7JVV
l.	2017	HHMXL10.5PVN
m.	2018	JHMXL07.7JVV
n.	2018	JHMXL10.5PVN
o.	2019	KHMXL07.7JVV
p.	2019	KHMXL10.5PVN
q.	2019	KHMXL12.9EYM

*The approximately 2,141 Subject Engines in these engine families are not equipped with a selective catalytic reduction system, as described in Paragraph 93 below.

67. Defendants manufactured each of the Subject Engines with the intent that they would be imported into the United States, sold, offered for sale, introduced into commerce, or delivered for introduction into commerce.

68. Hino Motors, Ltd. submitted COC applications to EPA for each engine family containing the Subject Engines.

69. Hino Motors, Ltd. represented that the Subject Engines complied with all applicable emissions regulations, including the regulations found under 40 C.F.R. Part 86, 40 C.F.R. Part 1039, and 40 C.F.R Part 1036.

70. Hino Motors, Ltd. submitted lists of AECDs for the Subject Engines in each engine family with the COC applications.

71. Hino Motors, Ltd. certified that the Subject Engines covered by each engine family were free of defeat devices.

72. Each of Hino Motors, Ltd.'s COC applications constituted a "report [and/or] information the Administrator may reasonably require" to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

73. EPA issued COCs for the Subject Engines based on the information provided and representations made by Defendants in the COC applications submitted to EPA.

74. Each of the COCs issued by EPA for the Subject Engines expressly states that the certificate covers only those new engines that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such engine.

A. Inaccurate or Invalid Test Data

75. Hino Motors, Ltd. submitted COC applications to EPA for each engine family covering the highway and nonroad Subject Engines.

76. The COC applications purportedly contained the emissions test data required for demonstrating compliance with the CAA and the issuance of a valid COC.

i. Highway Subject Engines

77. The COC applications for the highway Subject Engines contained test data purportedly representing valid test results from the required FTP cycle testing.

78. The COC applications for the highway Subject Engines contained test data purportedly representing valid test results from the required RMC cycle testing.

79. The COC applications for the highway Subject Engines contained attestations by Hino that the required NTE testing was performed and that the engines met the standards.

80. The COC applications for the highway Subject Engines contained DFs purportedly representing durability testing performed on a representative engine for the applicable engine family.

ii. Nonroad Subject Engines

81. The COC applications for the nonroad Subject Engines contained test data purportedly representing valid test results from the transient duty cycle testing.

82. The COC applications for the nonroad Subject Engines contained test data purportedly representing valid test results from the steady-state duty cycle tests, including the RMC.

83. The COC applications for the nonroad Subject Engines contained DFs purportedly representing durability testing performed on a representative engine for the applicable engine family.

84. Each of Defendants' cycle tests, NTE testing, and durability tests constituted "testing . . . that the Administrator may reasonably require" to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

85. Upon information and belief, nearly all of the test data referred to in Paragraphs 75-84 above, submitted to EPA by Hino Motors, Ltd. in support of its COC applications, was inaccurate.

86. Upon information and belief, Hino Motors, Ltd. regularly altered data submitted to EPA in support of its COC applications, obtained data through improperly conducted tests, or entirely fabricated data without conducting any underlying required testing.

87. Hino Motors, Ltd. also fabricated DF data without conducting any durability testing in compliance with the testing procedures outlined in 40 C.F.R. Part 1065 for the highway Subject Engines and 40 C.F.R. §§ 1039.540–1039.245 for the nonroad Subject Engines.

88. The Subject Engines are not as described in Hino Motors, Ltd.’s application for the COC in all material respects because Defendants submitted incorrect or incomplete testing information, or knowingly rendered test data inaccurate, or submitted false or fabricated test data in their applications data in the relevant COC applications.

89. Each of the Subject Engines therefore is not covered by a COC.

90. EPA may void a manufacturer’s COC if the manufacturer intentionally submitted false or incomplete information. 40 C.F.R. §§ 86.007-30(c)(3), 1039.255(e).

91. Under applicable law, a COC voided *ab initio* is treated as one that was never granted in the first instance, and all engines or vehicles introduced into commerce under that certificate are considered noncompliant. *See, e.g.*, 40 C.F.R.

§ 1068.30, 40 C.F.R. § 1036.801. The holder of the voided COC is liable for all engines or vehicles introduced into U.S. commerce under the voided certificate and may face civil and criminal penalties. 42 U.S.C. §§ 7413, 7522, 7524; *see also* 40 C.F.R. §§ 1068.30, 1068.101, 1068.125.

92. On January 10, 2025, EPA’s Office of Transportation and Air Quality voided *ab initio* the COCs for all Subject Engines.

B. Emission Control Devices and Elements of Design in the Subject Engines

i. Engine After-Treatment Systems

93. Diesel engine manufacturers may use after-treatment systems to lower NO_x emissions by removing NO_x from the exhaust after combustion but before emission from a vehicle’s tailpipe. A “selective catalytic reduction” (“SCR”) system is one example of an after-treatment system. An SCR system injects a urea solution into the exhaust (generically known as diesel exhaust fluid or “DEF”), producing a chemical reaction that reduces some of the NO_x to nitrogen and water.

94. The Subject Engines listed in Paragraph 66, Table A (Highway Engine Families) and Table B (Nonroad Engine Families), except the engine families listed in rows a-k of Table B, are equipped with an SCR system that uses DEF to control NO_x emissions (the “SCR-Equipped Subject Engines”).

ii. *Electronic Control Modules in the Subject Engines*

95. Modern vehicle engines are equipped with electronic control modules (“ECMs”), also known as electronic control units (“ECUs”), which control functions in the engines using software integrated in the ECM hardware. For each function (*e.g.*, the rate of fuel injected into the engine), the software includes algorithms or calibrations that process inputs (*e.g.*, engine temperature) to the ECM and send a control signal to engine components to perform certain actions depending on those inputs.

96. An ECM has thousands of configurable parameters. These parameters range from “Bits,” which switch a function on or off, to threshold values programmed into the ECM’s software maps to trigger changes in performance when certain conditions are met (*e.g.*, to adjust emission control functions after the SCR catalyst temperature and exhaust gas mass flow surpass a certain threshold).

97. Each Subject Engine contains an ECM.

98. ECM software includes software functions that are AECDs within the meanings of 40 C.F.R. § 86.082-2 and 40 C.F.R. § 1039.801 if a software function senses inputs, like temperature, speed, or transmission gear, then sends a message that affects the operation of an emission control system.

iii. Onboard Diagnostics Systems in the Highway Subject Engines

99. Manufacturers must equip new heavy-duty highway engines with an Onboard Diagnostics (“OBD”) system. 42 U.S.C. § 7521(m); 40 C.F.R. § 86.010-18.

100. An OBD system is computer software that monitors and evaluates various emissions controls and components in an engine, including the SCR system. 40 C.F.R. § 86.010-18(c).

101. The OBD system illuminates a malfunction indicator light (“MIL”), commonly known as a “check engine light,” on the vehicle’s dashboard if it identifies a deterioration or malfunction in a system that may affect emissions controls, and the system stores codes corresponding to detected malfunctions. 40 C.F.R. § 86.010-18(b). Each of the highway Subject Engines is equipped with an OBD system.

C. Undisclosed AECDs in the SCR-Equipped Subject Engines

102. The COC applications for the Subject Engines describe elements of design that Defendants installed in the Subject Engines to comply with federal

emissions regulations, including engine control systems, engine after-treatment systems, and OBD monitoring systems.

103. The COC applications for the SCR-Equipped Subject Engines describe, and each such engine contains, an SCR system that Defendants installed to control and reduce NO_x emissions.

104. The SCR system described in the applicable COC applications and installed in the applicable Subject Engines, and each component thereof, is a device or element of design Defendants installed in the SCR-Equipped Subject Engines to comply with regulations promulgated under Title II of the Act.

105. Each Subject Engine's ECM employs AECDs in the form of specific software functions and calibrations. These AECDs rely on inputs (*e.g.*, exhaust gas flow rate, SCR catalyst temperature, duration of engine operation, and NO_x concentration in engine exhaust) to activate, modulate, delay, or deactivate parts of each Subject Engine's emission control system.

106. The SCR-Equipped Subject Engines contain one or more AECDs that Defendants did not disclose, fully disclose, describe, or justify in their application for the COC that purportedly covers the Subject Engine.

107. In their COC applications for the SCR-Equipped Subject Engines, Defendants failed to disclose at least the following 4 AECDs, which, when engaged individually or in combination with other AECDs, impact the SCR-

Equipped Subject Engine's after-treatment system. These AECDs reduce the effectiveness of the SCR-Equipped Subject Engine's emission control system:

Table C - Undisclosed AECDs

	AECD	Description
a.	AECD #1 ("HC Dosing AECD")	Activates a hydrocarbon ("HC") doser in the aftertreatment system to prevent soot from clogging the doser nozzle.
b.	AECD #2 ("DEF Dosing at Idle AECD")	Controls DEF dosing at idle to prevent the accumulation of DEF crystals in the aftertreatment system.
c.	AECD #3 ("HC Poisoning AECD")	Limits DEF dosing in situations when the SCR catalyst has limited NO _x conversion efficiency as a result of perceived buildup of hydrocarbon on the catalyst.
d.	AECD #4 ("NH3 Load Governor")	Regulates the rate of ammonia ("NH3") injection, which in turn dictates the speed at which ammonia is loaded onto the SCR catalyst.

108. Defendants installed one or more of the undisclosed AECDs listed in Table C in each SCR-Equipped Subject Engine.

109. Each undisclosed AECD listed in Table C, above, is a design specification that differs in a material respect from the design specifications that Defendants disclosed in the COC applications for the SCR-Equipped Subject Engines.

110. Each SCR-Equipped Subject Engines therefore is not covered by a COC.

D. Defeat Devices in the Subject Engines

111. An SCR Feedback Monitor is a component of the SCR system that adjusts DEF dosing as necessary to maintain the NO_x conversion efficiency needed to meet applicable emission standards.

112. In order to effectively maintain NO_x conversion efficiency and detect SCR failures, the ECM software must store DEF dosing information from previous engine use upon restart of the engine.

113. For the SCR-Equipped Subject Engines, Defendants designed the ECM software such that DEF dosing information is not stored from the previous engine use upon restart of the engine. Thus, when these SCR-Equipped Subject Engines are restarted, the DEF dosing reverts to default settings which, under some circumstances, will fail to maintain the expected NO_x conversion efficiency.

114. Subject Engines that did not maintain expected NO_x conversion efficiency through DEF dosing caused NO_x emissions exceeding standards set forth in the CAA.

115. For the highway Subject Engines, the SCR Feedback Monitor is monitored by the OBD system.

116. The OBD system must illuminate a MIL if DEF dosing reaches an adjustment threshold and the NO_x conversion efficiency is not maintained, in order to notify the operator of a system problem.

117. Defendants programmed the ECM software for the highway Subject Engines such that the OBD system could not illuminate the MIL for the SCR Feedback Monitor under any DEF dosing circumstances.

118. If the ECM software is designed such that the MIL cannot be illuminated under any circumstances, the vehicle operator will not be notified when the SCR system requires repair or if there are emissions control issues.

119. When engaged individually, or in combination, both the SCR Feedback Monitor and the ECM software that prevents the MIL from illuminating are parts or components that have a principal effect of bypassing, defeating, or rendering inoperative engine control systems and/or after-treatment control systems installed in the applicable Subject Engines.

FIRST CLAIM FOR RELIEF

(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicle Engines and Nonroad Engines Not Covered by COCs)

120. The United States re-alleges and incorporates paragraphs 1 through 119 herein.

121. Hino Motors, Ltd. submitted to EPA applications for COCs which purported, among other things, to identify the covered engine family, describe the Subject Engines and their emission control system, convey test results showing that the Subject Engines demonstrate compliance with applicable emissions standards and test procedures, and disclose AECDs.

122. The Subject Engines manufactured, sold, and imported by Defendants were not covered by a COC because the engines did not conform in all material respects to their certification applications, in violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1).

123. Defendants each violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicle engines and new nonroad engines that are not covered by a COC, or by causing any of the foregoing acts.

124. Each violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle engine and each new nonroad engine.

SECOND CLAIM FOR RELIEF
(Section 203(a)(2)(A) and 203(a)(2)(C) Reporting and Testing
Violations)

125. The United States re-alleges and incorporates Paragraphs 1 through 119 as if fully set forth herein.

126. Each application for a COC constitutes a “report [and/or] information the Administrator may reasonably require . . .” to assess compliance with the Act within the meaning of Section 208(a) of the CAA, 42 U.S.C. § 7542(a).

127. A COC application for highway engines must include accurate and complete emissions data produced from FTP, steady-state duty cycle tests, and tests performed to develop DFs. *See* 40 C.F.R. §§ 86.007-21, 86.007-30, 86.094.21. A COC application for nonroad engines must include accurate and complete emissions data produced on steady-state duty cycle tests, transient duty cycle tests, and tests performed to develop DFs. *See* 40 C.F.R. §§ 1039.201(b), 1039.205(m), (o).

128. The COC applications Defendants submitted for the Subject Engines included false or incomplete test data.

129. Defendants failed to disclose one or more AECDs identified in Paragraph 107, Table C, in the COC applications for the SCR-Equipped Subject Engines, information reasonably required by the Administrator to determine whether Defendants have acted or are acting in compliance with Part A of Title II of the Act.

130. Defendants violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2)(A), by failing to submit complete and accurate reports and/or information.

131. Each failure to provide reports and/or information described above, including accurate test data, is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2)(C).

132. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), and 40 C.F.R. § 19.4, Defendants are liable for injunctive relief and civil penalties of up to \$37,500 per day of violation for such violations occurring between January 12, 2009, and November 2, 2015, and up to \$57,617 per day of violation for such violations occurring after November 2, 2015.

THIRD CLAIM FOR RELIEF

(Section 203(a)(3)(B): Manufacturer, Sale, Offer for Sale, or Installation of Defeat Device in New Motor Vehicle Engines and Nonroad Engines)

133. The United States re-alleges and incorporates paragraphs 1 through 119 herein.

134. From 2010 to 2019, Defendants manufactured, sold, offered for sale, or installed (or caused any of the foregoing) parts or components, including the software in the SCR Feedback Monitor that restores DEF dosing to default conditions as described in Paragraphs 111-119, intended for use with, or as part of, the SCR-Equipped Subject Engines, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the SCR-Equipped Subject Engines in compliance with regulations under Title II of the Act, and Defendants “[knew] or should [have known] that such part or component [was] being offered for sale or installed for such use or put to such use.” 42 U.S.C. § 7522(a)(3)(B).

135. From 2010 to 2019, Defendants manufactured, sold, offered for sale, or installed (or caused any of the foregoing) parts or components, including the ECM software that prevents the MIL from illuminating as described in Paragraphs 111-119, intended for use with, or as part of, the highway Subject Engines listed in Paragraph 66, Table A (Highway Engine Families), where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the highway Subject Engines in compliance with regulations under Title II of the Act, and Defendants “[knew] or should [have known] that such part of component [was] being offered for sale or installed for such use or put to such use.” 42 U.S.C. § 7522(a)(3)(B).

136. Defendants each violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing parts or components where the principal effect of the part or component is the bypassing, defeat, or rendering inoperative of a device or element of design installed on or in Subject Engines, or causing any of the foregoing acts.

137. Each part or component described in Paragraphs 111-119 that was manufactured, sold, offered for sale, or installed on new highway engines or new nonroad engines (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

138. Under Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), and 40 C.F.R. § 19.4, Defendants are each liable for injunctive relief and civil penalties of up to \$3,750 per part or component that constitutes a defeat device per Subject Engine for each violation occurring between January 12, 2009, and November 2, 2015, and up to \$5,179 per part or component that constitutes a defeat device per Subject Engine for each violation occurring after November 2, 2015.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

139. The United States re-alleges and incorporates paragraphs 1 through 119 herein.

140. When engaged individually, or in combination, both the software in the SCR Feedback Monitor that restores DEF dosing to default conditions and the ECM software that prevents the MIL from illuminating, as described in Paragraphs 111-119, has the effect of removing or rendering inoperative devices or elements of design installed on or in the SCR-Equipped Subject Engines, in compliance with regulations promulgated under Title II of the Act.

141. Defendants each violated Section 203(a)(3)(A), 42 U.S.C. § 7522(a)(3)(A), by incorporating the software in the SCR Feedback Monitor that restores DEF dosing to default conditions and the ECM software that prevents the MIL from illuminating in the SCR-Equipped Subject Engines, thereby removing or

rendering inoperative elements of the emissions control system installed in a new motor vehicle engine in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

142. Each Subject Engine equipped with the software that prevented the MIL from illuminating and/or that restored DEF dosing to default conditions represents a separate violation of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

143. Under Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), and 40 C.F.R. § 19.4, Defendants are each liable for injunctive relief and civil penalties of up to \$37,500 per Subject Engine for each violation occurring between January 12, 2009, and November 2, 2015, and up to \$51,796 per Subject Engine for each violation occurring after November 2, 2015.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin Defendants from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing into the United States (or causing any of the foregoing acts with respect to) any new motor vehicle engine or nonroad engine not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin Defendants from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing into the United States (or causing any of the foregoing acts with respect to) any new motor vehicle engine or nonroad engine equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin Defendants from manufacturing, selling, offering to sell, or installing parts or components intended for use with a motor vehicle, motor vehicle engine, or nonroad engine where a principal effect of such part or component is to bypass, defeat or render inoperative any device or element of design installed on or in a motor vehicle, motor vehicle engine, or nonroad engine in compliance with regulations promulgated under Title II of the Act.

d. Permanently enjoin Defendants from removing or rendering inoperative any device or element of design installed on or in a new motor vehicle, motor vehicle engine, or nonroad engine in compliance with regulations promulgated under Title II of the Act.

e. Order Defendants to take appropriate steps to remedy and prevent the violations of Sections 203(a)(1), 42 U.S.C. § 7522(a)(1), alleged above, including, but not limited to, mitigation of excess NO_x, PM, CO₂, and N₂O emissions from the Subject Engines.

f. Enter a judgment that Defendants are each liable to the United States for civil penalties for each violation of Section 203(a) of the Act, 42 U.S.C. § 7522(a), and assess civil penalties against Defendants as follows:

i. For violations of Section 203(a)(1) of the Act: up to \$37,500 per Subject Engine for each violation occurring between January 12, 2009, and November 2, 2015, and up to \$57,617 per Subject Engine for each violation occurring after November 2, 2015;

ii. For violations of Section 203(a)(3)(B) of the Act: up to \$3,750 per part or component that constitutes a defeat device per Subject Engine for each violation occurring between January 12, 2009, and November 2, 2015, and up to \$5,761 per part or component that constitutes a defeat device per Subject Engine for each violation occurring after November 2, 2015;

iii. For violations of Section 203(a)(3)(A) of the Act: up to \$37,500 per Subject Engine for each violation occurring between January 12, 2009, and November 2, 2015, and up to \$57,761 per Subject Engine for each violation occurring after November 2, 2015;

iv. For violations of Section 203(a)(2) of the Act: up to \$37,500 per day of violation for each violation occurring between January 12, 2009, and November 2, 2015, and up to \$57,617 per day of violation for each violation occurring after November 2, 2015;

- e. Award the United States its costs in this action; and
- f. Grant such other and further relief as the Court deems just and

proper.

Respectfully submitted,

TODD KIM
Assistant Attorney General
Environment & Natural Resources Division
United States Department of Justice

January 15, 2025
Date

s/ David Laufman Weigert
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CERTIFICATE OF SERVICE

I hereby certify that copies of this Complaint were served by electronic mail on the following counsel for Defendants in accordance with the notice provisions of the proposed Consent Decree in this case:

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Dated: January 15, 2025

s/ David Laufman Weigert